

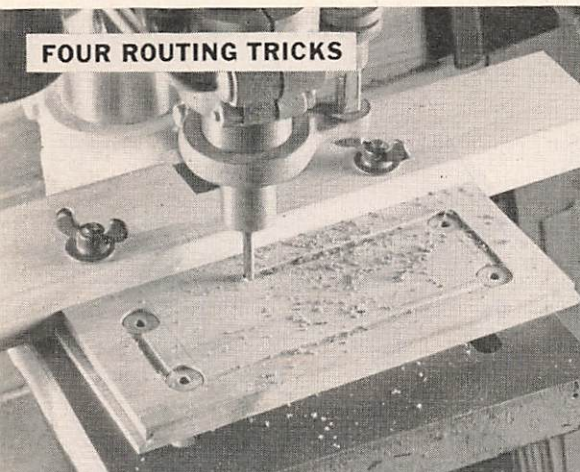
Sixteen Ways

Bored with just drilling

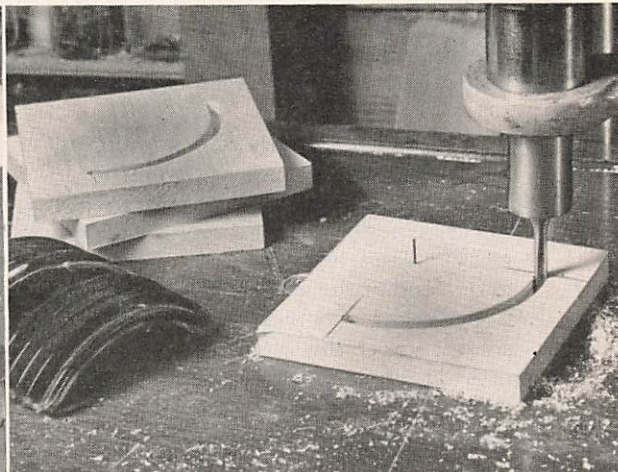
By Glenn A. Wagner

THE man who uses his drill press only for drilling is wasting one of the handiest tools in his workshop. Its vertical spindle is made to order for dozens of other wood- and metal-working jobs.

FOUR ROUTING TRICKS



1 ROUTING IS A CINCH on a drill press. When you use large router bits the side thrust may be high, so don't hold them in a taper-mounted chuck—use a router chuck. Adjust the belt for highest spindle speed.

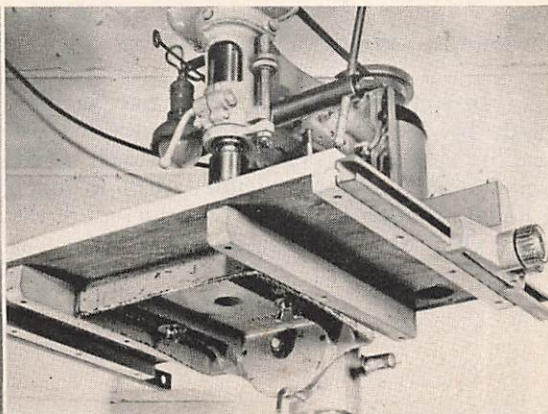
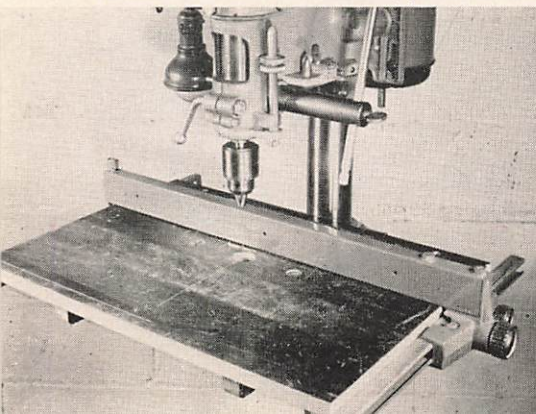


2 IN ROUTING A RADIUS, pivot the stock on a brad driven down into the wooden auxiliary table. Make several light cuts rather than one deep one. The groove shown here will hold the curved lens from a marine running light.

Auxiliary Table Makes Drill Press More Convenient

BIG PARTS can be handled easier if you make a large auxiliary table. It will give long work more support and enable you to attach guide strips and jigs with nails or screws. If you fit a circular-saw fence to the table, you'll be able to

line up work with micrometer precision. The underside of this auxiliary table has two cleats to align it with the drill-press table. Loosening wing nuts enables you to slide the auxiliary table in or out.



Long the carpenter's most indispensable tool, your handsaw, with just a few minor alterations, can be put to many uses.

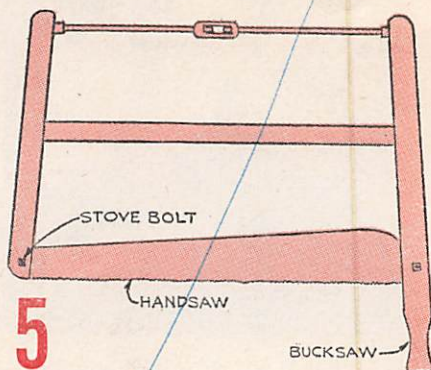
angle to the edges, as you would to sharpen a rip saw. Next, file the second four at a 35° to 40° bevel, as for sharpening a crosscut. Then alternate the filing of groups of four teeth down the length of the saw.

Occasionally you may run into a job where you have to square up large timbers such as a 12"-by-12" and find the handsaw difficult to manage. You can fit the blade into an old bucksaw frame, as shown in Fig. 5, for easier handling and elimination of sway. Drill or punch a hole at each end of the blade. You may find it necessary to shorten the central brace and adjust the turnbuckle rod.

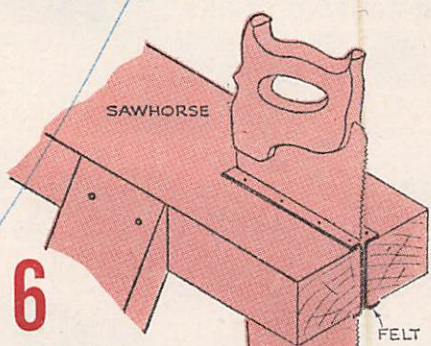
Proper care of a saw is important if you are to get the best service from it. Oiling the blade before, during and after a job should never be neglected. You can make a quick, efficient oiler of two strips of felt slid into a slot at one end of the sawhorse, as in Fig. 6. Let the felt overlap, and tack at top and bottom. You simply insert the blade near the handle and draw it upward. Oil on the felt lasts a long time, and you need not keep the oil can at your elbow or handle a messy oiled rag.

When not in use, put the saw away where its teeth will not be damaged by coming into contact with other tools. A neat rack can be made by kerfing a length of two-by-four for as many saws as you have, and then chiseling a V slot in the top of each kerf, as shown in Fig. 7, to hold two marbles or steel balls. The saw is pushed up into the kerf between the marbles. When let loose, its weight causes the marbles to pinch the blade and hold it. When you need it again, push the saw up to release the hold of the marbles. Rack saws with the teeth in to avoid injury to anyone passing by, but take care not to bang them against the wall.

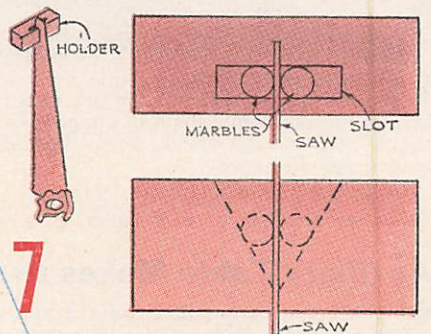
In spite of good care, you may crack a blade by accident. To permit continued use and prevent lengthening of the crack before you can have the place welded, drill or punch a hole in the blade just beyond the end of the crack (Fig. 8). Spreading will stop there.



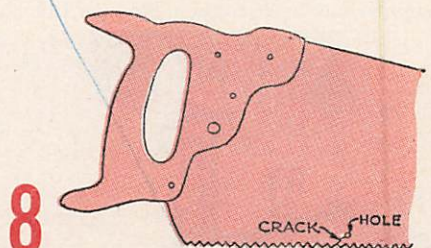
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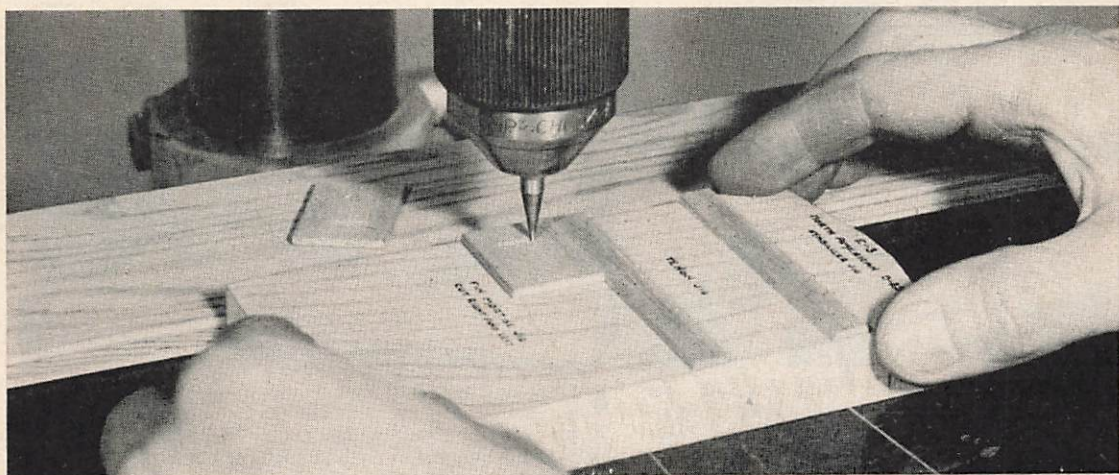
to Use Your Drill Press

holes? Here's a bale of other useful jobs your press can do.

With suitable attachments this power tool becomes a router, shaper, sander, planer and duplicator. It will cut accurate dovetails, form mortises, and serve equally well as a hole- or circle-cutter. A seemingly tricky job like fluting tapered table legs becomes a breeze when

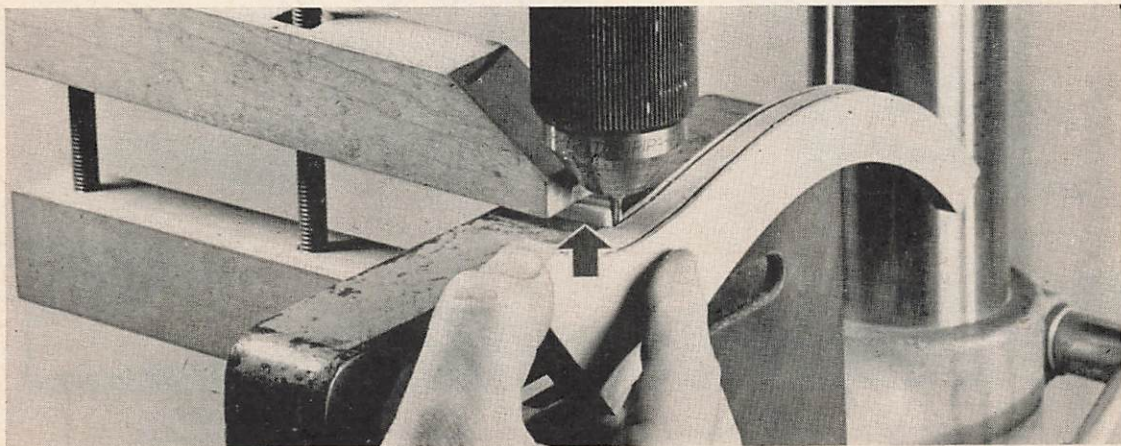
you fit the press with a simple aligning jig that you can knock together.

The pictures on these and the following three pages show some of the less common things you can do with this tool. If you are a resourceful craftsman, you'll undoubtedly think of others.



3 PRODUCTION-LINE MORTISING of model parts calls for a jig. The work is butted against a framing strip, the spindle brought down, and

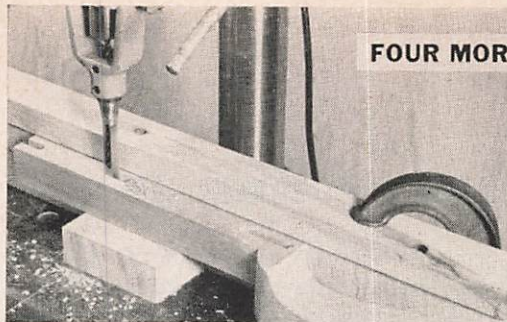
the whole jig slid under a fast-turning veining bit. Fence guides the jig. For angle cuts, mount framing strip at the desired angle.



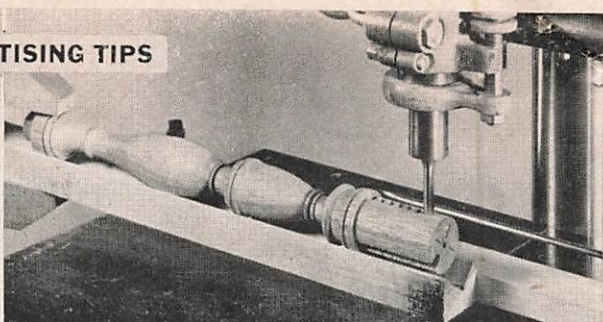
4 GROOVES FOR INLAY WORK can be cut along the curved surfaces of furniture parts by tilting and locking the drill-press table verti-

cally. The work is fed up and along the table surface. Clamp holds a small protruding block (arrow) to limit the depth of cut of veining bit.

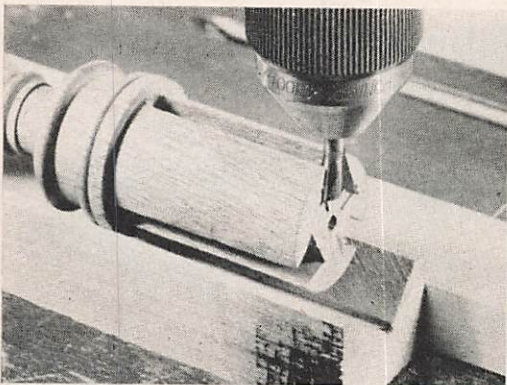
FOUR MORTISING TIPS



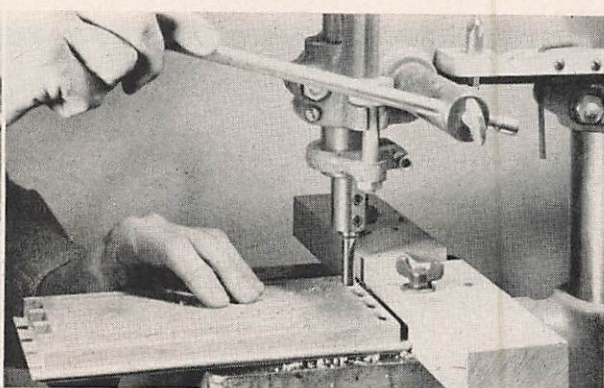
1 CUTTING MORTISES in irregularly shaped parts generally requires blocking them up and perhaps blocking them out from fence. Strip clamped on work is a hold-down that permits the mortising chisel to be withdrawn easily.



2 BIG MORTISES can be routed for speedy removal of stock. First use router bit vertically to bore out waste. Then use sliding cuts to smooth the edge. Round work should be clamped in a V-grooved block.

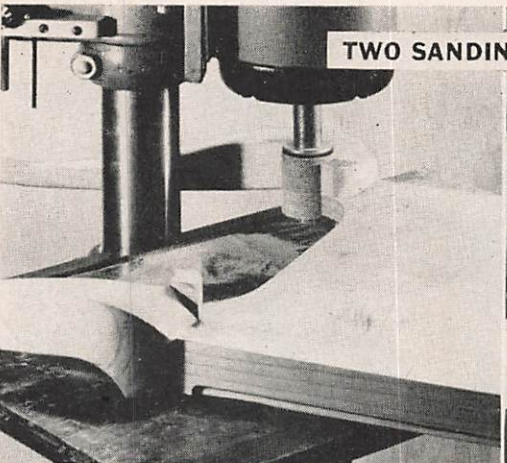


3 TAPERED CUTTER finishes off a dovetail mortise. Always make a conventional mortise first to clear out the bulk of the waste. Then a single pass of the dovetailing tool shapes the locking, undercut sides of mortise.

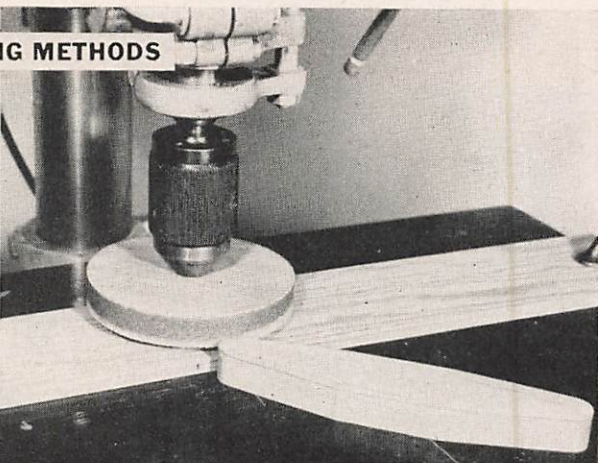


4 SPECIAL DOVETAILS that would require long and exacting work with chisel can be about 90 percent completed with a router. Use it like a drill and then finish with sliding cuts. A little chisel work squares the corners.

TWO SANDING METHODS

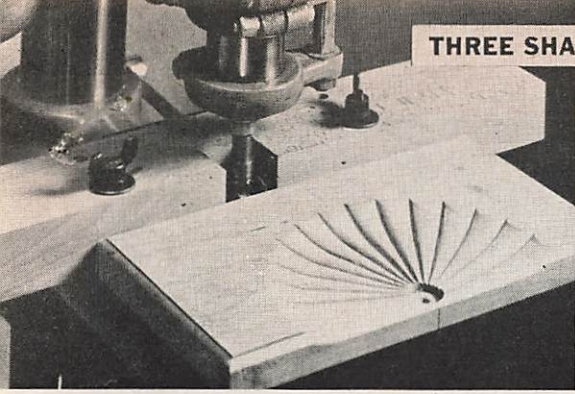


1 ON AWKWARD JOBS, where you need extra table support, this dodge may help. Sanding drum is attached to the motor shaft and the drill-press head is swiveled around column. Drum is handy on concave surfaces.



2 SANDING JIG is extra handy on production runs because it both sizes and edge-sands the workpiece. Rough-cut piece is bradied to a pattern that is turned against a fence. Disk with abrasive cloth glued on does the cutting.

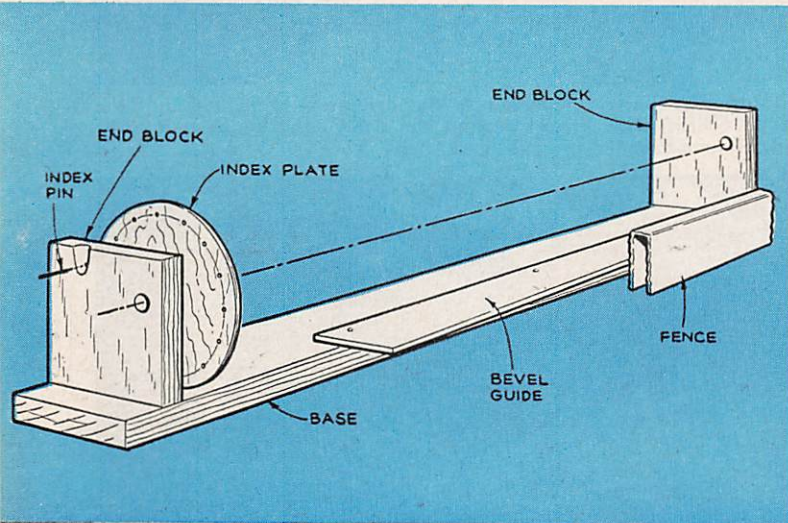
THREE SHAPING IDEAS



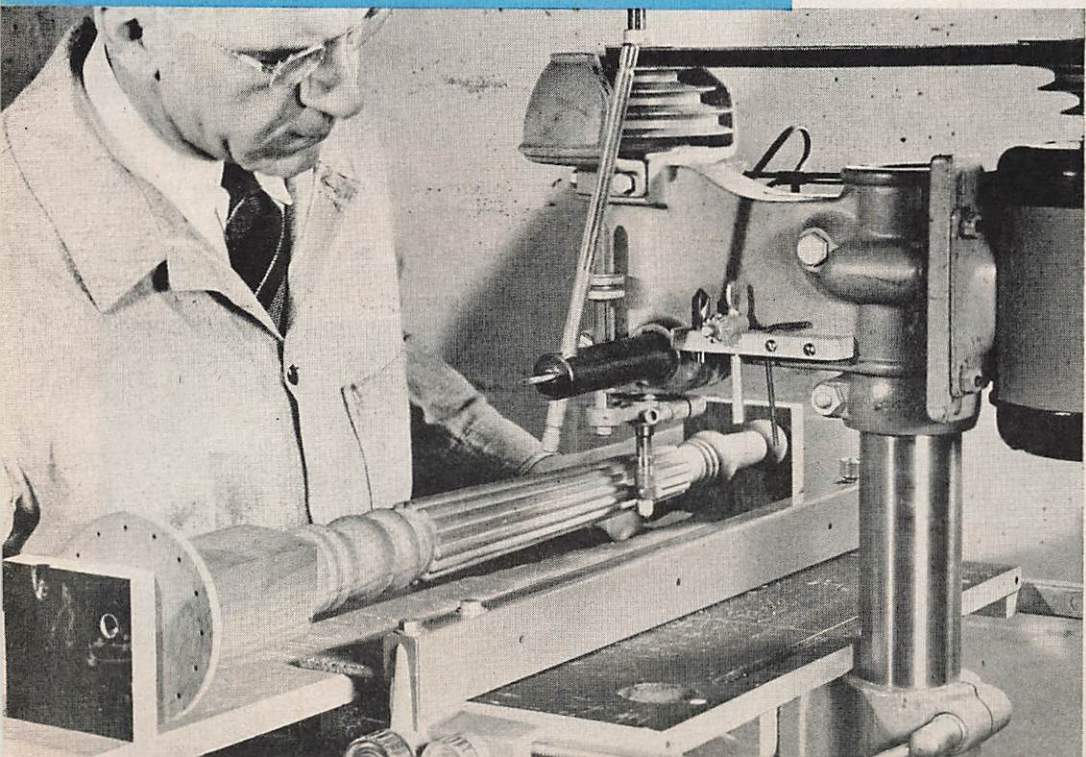
1 FANCY EDGES on drawer fronts, box lids and plaques may be produced with one or more molding cutters bridged by a hardwood fence. Do not use a taper-socket chuck for shaping; it may work loose while turning at high speed.



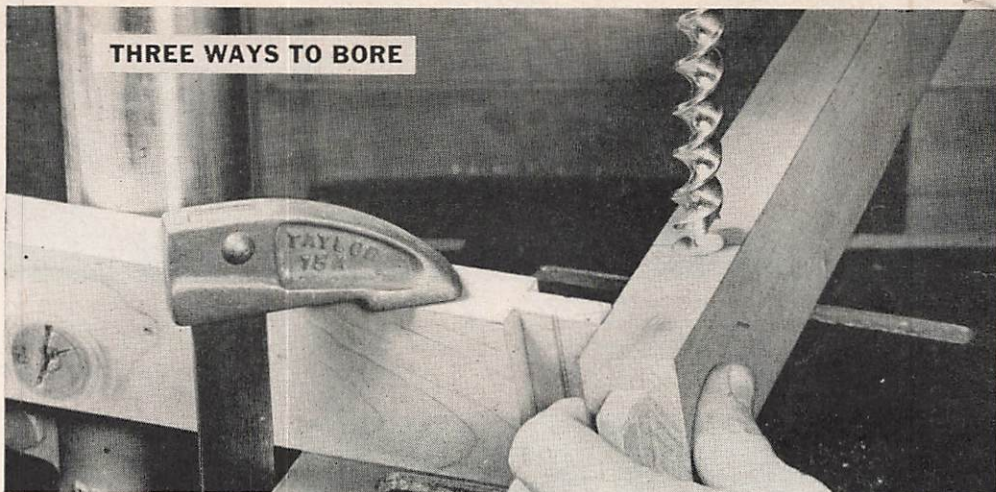
2 REPEAT WORK of irregular shape can be molded with a jig that bears against a guide washer. Backing blocks and clamp strip hold the workpieces on this four-sided jig. Multiple cutters permit combinations of shapes.



3 FLUTING a fancy turning is a drill-press job with this setup. Jig allows workpiece to rotate between wood-screw centers; plywood index plate is used to lock it for each cut. Nailed to base of jig is a guide strip angled to match the taper of the section to be fluted. Spindle is adjusted so cutter is at center height and locked there. A reeding cutter, turning at high speed, forms a flute. Then press is stopped, work indexed in next screw hole, and next flute formed. Jig should be rigid and sturdy.

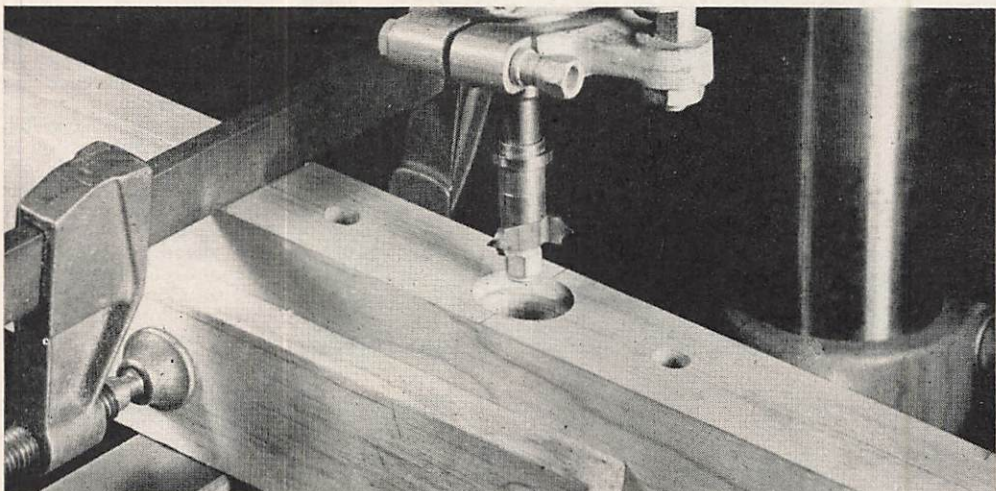


THREE WAYS TO BORE



1 VERTICAL HOLES in angled furniture parts like a table stretcher can be drilled with ease if you use this trick. Just clamp an adjacent

stretcher to the drill-press table and butt the work against the stretcher's sloping end while you drill the hole.



2 YOU CAN ENLARGE A DRILLED HOLE with a shaper cutter if you don't have the right size bit. During this operation, run the drill-press

spindle at its slowest speed. The side block above was put in position to hold the stock for an angled hole.

3 A CIRCLE CUTTER mounted in a drill-press chuck will handle holes up to 3". To avoid damaging the work, drill part way from one

side and turn it over to finish. The pilot hole through the work will keep the cuts in register. Be sure to clamp the work down.

